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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/817,076 07/15/97 YAMAMOTO

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EXAMINER

PM82/0405

FINNEGAN HENDERSON FARABOW GARRETT
& DUNNER

1300 I STREET NW
WASHINGTON DC 20005-3315

NGUYEN, T

ART UNIT

PAPER NUMBER

3661
DATE MAILED:

04/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/817,076

Applicant(s)
Yamamoto

Examiner
Thu Nguyen

Group Art Unit
3661



☒ Responsive to communication(s) filed on Jan 30, 2001

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-5, 7-9, 13-16, 18-26, and 28-35 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 3 and 5 is/are allowed.

☒ Claim(s) 2, 4, 8, 9, 13-16, 18-26, and 28-35 is/are rejected.

☒ Claim(s) 7 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 18

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 10/24/2000 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because on the 1449 form, the listed document number is H06-215150, but the enclosed reference includes a translation version of a "Notification of Reason for Refusal" and an English version of claims 1-10 which the examiner is not sure should the claims of the listed reference in the 1449 form. Further, the Information Disclosure Statement filed on 7/9/1997 (paper No. 3) lists document number 06-215150. Examiner is not sure if the listed document H06-215150 in the present 1449 form (on 10/24/2000) is the same as the listed document (06-215150) in the 1449 form on 7/9/1997. Since there is a mismatch between the enclosed reference and the reference listed in the 1449 form, the Information Disclosure paper No.18 (on 10/24/2000) has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

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Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 depends on claim 17 which has been cancelled. Since the dependency of claim 18 cannot be determined, claim 18 is not further considered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, 8-9, 13-16, 19-26, 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crane et al (U.S Patent No. 6,054,991) in view of Blahut et al (U.S Patent No. 5,463,728) and further in view of Harrison et al ("Transparent Layered User Interfaces: An Evaluation of a Display Design to Enhance Focused and Divided Attention", Conference on Human Factors and Computing systems, May 1995, Pages 317-324).

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As per claim 2, 8, 9, 13-14, 23-26, 28-35, Crane et al discloses a virtual image generation apparatus which comprises: a shape data memory means (col.7, lines 34-39); position specification means which specifies the position of moving object with respect to stationary objects (col.9, lines 13-16); overlap determining means which determines whether or not a stationary object is located between the viewpoint and the operator-controlled object (abstract); image generation means for displaying the operator-controlled object and the stationary objects and rendering the objects as a non-show through image in the event that both the operator-controlled object and the stationary objects are not overlapped (fig.1; col.2, lines 10-13, 20-24).

Crane et al does not disclose generating image data for displaying the operator-controlled object and the stationary objects such that when a stationary object is overlapped with the operator-controlled object, the stationary object is displayed as a show-through format. However, Blahut et al disclose displaying an object as a show through image through which a second object is partially visible (col.3, lines 59-67; col.4, lines 1-7; col.15, lines 45-62). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to display a stationary object as translution image so that the overlapped section of the moving object of Crane et al be seen as taught by Blahut et al. The motivation for this would have been to enhance divided attention to the user as motivated by Harrison in page 5, last paragraph; and page 6, first paragraph). Further, since Blahut et al discloses displaying different overlapping objects with different degree of transparency (col.3, lines 21-40; col.4, lines 1-7), Blahut et al inherently

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discloses pixels indicating different objects in a prescribed pattern (to display different shape of the object).

Crane et al does not explicitly disclose a terrain object. However, Crane et al discloses displaying stationary object 66 (fig.1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to store terrain objects instead of storing stationary objects of Crane et al, since the terrain object is just a stationary object as the wall 66 (fig.1) and selecting objects with an appearance suitable for a specific game requires only routine skill in the art.

As per claim 4, 15-16, comparing the position of the centroid of the stationary object with the position of the centroid of the moving object to determine the overlapping status of the objects would have been well known to an ordinary person skilled in the art at the time the invention was made. Further, it would have been obvious to predict the overlapping condition when the displacement of the ground point of an object is smaller than the displacement of another object.

As per claim 19, 20, 21, 22, including explosion, enemy robot, etc as terrain objects in a computer game would have been well known to an ordinary person skilled in the art at the time the invention was made.

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Allowable Subject Matter

6. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claims 3, 5 are allowed.

Response to Arguments

8. Applicant's arguments filed 1/30/2001 have been fully considered but they are not persuasive.

In response to applicant's remark on page 20 on claims 3, 5, 14, and 16. Claims 3, 5 are allowed over prior arts. Claims 14 and 16, however, do not have the same scope as the allowed claims 14, and 16 in the amendment paper 16 (filed on July 6, 2000). Since the allowable subject matter has been omitted in claim 14, claim 14 is not found allowable over prior arts. Allowability of claim 14 and 16 is, therefore, withdrawn.

In response to applicant's remark on page 20-21 on claims 2, 4, 8, 9, 13, 15, 19-26, 28-30 and 31-35. Examiner does not believe that the added subject matter to independent claims 2, 8, 9, 13, 14, 25, 28-35 has the same scope and the same meaning as the claims 6-7, 17-18 presented in the amendment paper 16 (filed on July 6, 2000). The added subject matter does not overcome the prior arts presented in office action No. 17 (on 10/03/2000) as explained in section 35USC103 rejection above.

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9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 305-7687, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 305-7687 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

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Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, can be reached on (703) 308-3873. The fax phone number for this Group is (703)305-7687 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-1113.

NTV

March 29, 2001



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600